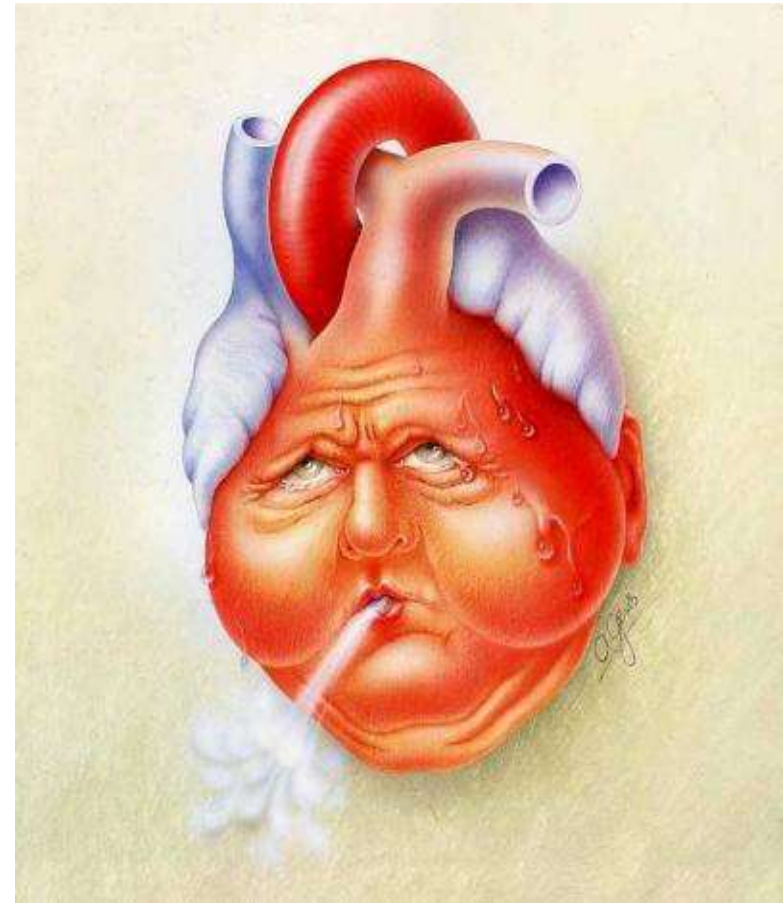




# Part 3: Chronic Heart Failure Continued

Karen Kopacek, M.S., R.Ph.  
Associate Professor (CHS)  
Spring 2021





# HF Case: Part 2

- SB is a 64 yo female who presents to clinic complaining of SOB with getting dressed and difficulty sleeping at night due to coughing.
- She notices her ankles are swollen and her socks leave a pronounced mark on her legs.
- She feels nauseous and gets full after eating only half of her meals.
- She can't exercise lately due to fatigue and weakness.





# HF Case Continued

- Physical exam:
  - Vitals: BP 128/72 mmHg, HR 72 bpm, RR 16 breaths/min
  - Ht: 66 inches, wt 71 kg (“dry” weight 68kg)
  - HEENT: JVP 10cm water
  - Heart: RRR, S3 present
  - Abd: soft, nontender, normal bowel sounds
  - Ext: 2+ pitting edema bilaterally
  - Lungs: CTA
- Chest X-ray: cardiomegaly
- ECHO: EF 20%



# Question #1

- Which type of HF does this patient have?
  - a. HFrEF
  - b. HFpEF
- Describe what is happening in the heart based on the type of HF SB has.



## Question #2

- Which of SB's signs and physical findings indicate the presence of congestion?
  - a. BP
  - b. Nausea with eating
  - c. Cardiomegaly
  - d. JVP
  - e. HR



# HF Case Continued

Home medications include:

- Atorvastatin 40mg po qhs
- Diltiazem SR 240mg po bid
- Isosorbide mononitrate 120mg po qam
- Nitroglycerin 0.4mg SL PRN CP
- Lansoprazole 30mg po qhs
- Aspirin 81mg po qday
- Ibuprofen 400mg po PRN headaches



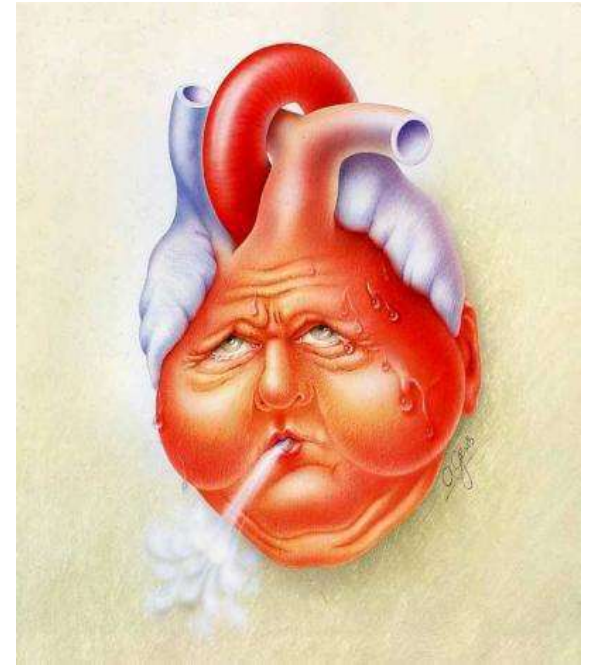
## Question #3

- Which medications could be exacerbating her condition?
- What is the mechanism that is causing these medications to exacerbate SB's HF?



# HF Part 3

- Goals of Therapy
- Non-Drug Therapies







# Objectives for Part 3

- List goals of therapy for the treatment of HF.
- Describe non-drug therapies recommended for the management of HF.



# Overall Goals of HF Therapy

- Improve quality of life
- Reduce symptoms
- Reduce hospitalizations
- Slow progression of disease
- Prolong survival



**3 Explore HF Options**

Take steps to manage HF.

- Monitored Cardiac Rehab
- Lifestyle Changes
- Prescription Medications
- Implanted Devices
- Surgical Procedures

Your action plan may include a combination of these steps.



# Disease Management Goals

- Remove underlying causes and control RF
  - Treatment of HTN
    - Avoid non-DHP CCBs
    - DHP CCBs (amlodipine, felodipine) safe to use in HF for treatment of angina and HTN
  - Treatment of DM
    - Caution with glitazones
    - Use of SGLT<sub>2</sub> inhibitors (preferred) and GLP-1 receptor agonists
      - SGLT2 inhibitors: dapagliflozin, empagliflozin
      - GLP-1 RA: liraglutide, semaglutide
  - Treatment of dyslipidemia

2021 Update to the 2017 ACC Expert Consensus Decision Pathway for Optimization of HF Treatment. JACC 2021;77:772–810.



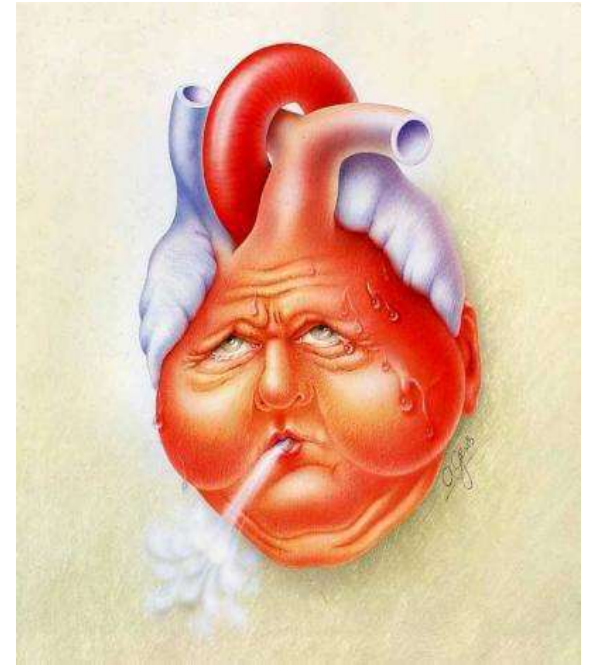
# Disease Management Goals

- Remove causes that lead to exacerbation
- Control state of heart failure
  - Improve cardiac performance
  - Reduce cardiac workload
  - Control sodium and water overload



# HF Part 3

- Goals of Therapy
- **Non-Drug Therapies for HF**



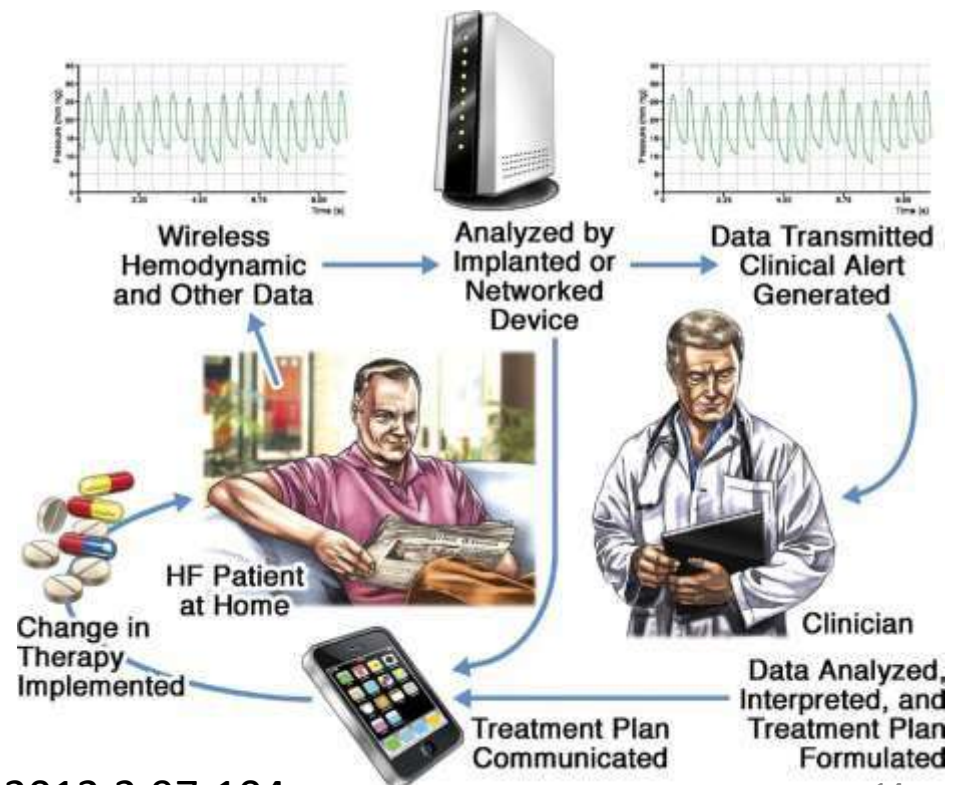


# Non-Drug Therapies



- **General Monitoring:**

- Symptoms of worsening HF
- Weigh daily: call if weight increases by  $\geq 3$  # overnight or  $\geq 5$  # over 5 days
- BP and orthostasis





# Non-Drug Therapies

- **Diet:** Low sodium, **goal is  $\leq 2$  grams sodium/day**
  - No added table salt, avoid cooking with salt (use spices instead), watch intake of salt substitutes (K<sup>+</sup> content)
  - Fluid restriction is optional: limit to 2 L per day
  - Alcohol: limit, or avoid in alcoholic cardiomyopathy

**FACE FEEL PUFFY?**  
**JEANS FIT TIGHTER?**

In **3** weeks you can:

- Change your sodium palate &
- Start enjoying foods with less sodium
- Reduce bloating

**CHANGE your SALTY WAYS**

IN ONLY **21 DAYS**

On average, American adults eat more than 3,400 milligrams of sodium daily – more than double the American Heart Association's recommended limit.

**3,400 mg** average sodium intake

**1,500 mg** recommended sodium intake

**heartcheckmark.org**

Look for the Heart-Check mark to find products that can help you make smarter choices about the foods you eat.

**KNOW THE SALTY 6**

Common foods that may be loaded with excess sodium:

- 1 Breads & Rolls
- 2 Cold Cuts & Cured Meats
- 3 Pizza
- 4 Poultry
- 5 Soup
- 6 Sandwiches

Choose wisely, read nutrition labels & watch portion control.

**WEEK ONE**

- Look for lower sodium items
- Track your sodium consumption
- Log how much sodium you've shaved out of your diet

**Breads & Rolls** **Cold Cuts & Cured Meats**

**WEEK TWO**

- If you do eat pizza, make it one with less cheese & meats
- Add veggies to your pizza instead
- Use fresh poultry rather than fried, canned or processed

**Pizza** **Poultry**

**WEEK THREE**

- One cup of chicken noodle soup can have up to 940 mg of sodium
- Check labels & try lower sodium varieties
- Use lower sodium meats, cheeses & condiments & plenty of vegetables to build healthier sandwiches

**Soups** **Sandwiches**

**American Heart Association** **American Stroke Association**

life is why™





# Non-Drug Therapy Continued

- **Weight reduction:** goal is within 15% of IBW
- **Activity and Rehabilitation programs:**
  - Supervised exercise to decrease atrophy of skeletal and heart muscles
  - Heavy lifting not recommended (over 30 lb)

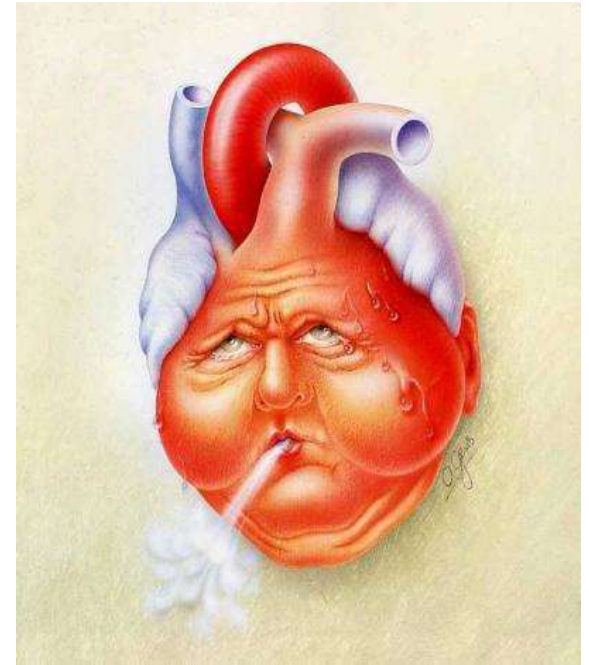






## HF Part 3

- Goals of Therapy
- Non-Drug Therapies



## Part 4: Medication Therapies for HFrEF